

SCHEDULE 14A
(RULE 14a-101)
INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION

PROXY STATEMENT PURSUANT TO SECTION 14(a) OF THE
SECURITIES EXCHANGE ACT OF 1934 (AMENDMENT NO.)

Filed by the registrant [X]

Filed by a party other than the registrant []

Check the appropriate box:

- [] Preliminary proxy statement
 [X] Definitive proxy statement
 [] Definitive additional materials
 [] Soliciting material pursuant to Rule 14a-11(c) or Rule 14a-12
 [] Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e) (2))

MEDTRONIC, INC.

(Name of Registrant as Specified in Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- [X] No fee required
 [] Fee computed on table below per Exchange Act Rules 14a-6(i) (4) and 0-11.

- (1) Title of each class of securities to which transaction applies:
(2) Aggregate number of securities to which transactions applies:
(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11. (Set forth the amount on which the filing fee is calculated and state how it was determined.)
(4) Proposed maximum aggregate value of transaction:
(5) Total fee paid:

- [] Fee paid previously with preliminary materials.
 [] Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a) (2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

- (1) Amount previously paid:
(2) Form, Schedule or Registration Statement No.:
(3) Filing party:
(4) Date filed:

[LOGO]
MEDTRONIC
WHEN LIFE DEPENDS ON MEDICAL TECHNOLOGY

7000 Central Avenue N.E.
Minneapolis, Minnesota 55432
Telephone: 612-514-4000

July 21, 1999

Dear Shareholder:

You are cordially invited to join us for our Annual Meeting of Shareholders to be held this year on Wednesday, August 25, 1999, at 10:30 a.m. (CDT) at Medtronic's Corporate Center at its Rice Creek facility, 7000 Central Avenue N.E., Minneapolis (Fridley), Minnesota.

The Notice of Annual Meeting of Shareholders and the Proxy Statement that follow describe the business to be conducted at the meeting. We will also report on matters of current interest to our shareholders.

We invite you to join us beginning at 10:00 a.m. to view Medtronic's product displays and talk with our employees.

YOUR VOTE IS IMPORTANT. Whether you own a few or many shares of stock, it is important that your shares be represented. If you cannot personally attend, we encourage you to make certain that you are represented at the meeting by voting by telephone or internet as described in the enclosed instructions or by signing the accompanying proxy card and promptly returning it in the enclosed envelope.

Sincerely,

/s/ William W. George

William W. George
Chairman of the Board and Chief Executive Officer

NOTICE OF ANNUAL MEETING
OF SHAREHOLDERS

WEDNESDAY, AUGUST 25, 1999

To Our Shareholders:

The 1999 Annual Meeting of Shareholders of Medtronic, Inc. will be held Wednesday, August 25, 1999, at the Medtronic, Inc. Corporate Center at its Rice Creek facility, 7000 Central Avenue N.E., Minneapolis (Fridley), Minnesota, at 10:30 a.m. (CDT) for the following purposes:

1. To set the size of the Board at 14 directors and to elect four Class I directors for three-year terms.
2. To approve an amendment to the Company's Restated Articles of Incorporation to increase the number of shares of Common Stock the Company is authorized to issue.
3. To reapprove the performance criteria for the Company's Management Incentive Plan.
4. To reapprove the performance criteria for the Company's 1994 Stock Award Plan.
5. To approve appointment of PricewaterhouseCoopers LLP as the Company's independent auditors.
6. To take action on any other business that may properly be considered at the Meeting or any adjournment thereof.

These items are more fully described in the following pages of the Proxy Statement.

Shareholders of record at the close of business on July 2, 1999 will be entitled to vote at the Meeting and any adjournments of the Meeting.

By Order of the Board of Directors,

/s/ Ronald E. Lund

Ronald E. Lund
Secretary

YOUR VOTE IS IMPORTANT.

PLEASE VOTE BY TELEPHONE OR INTERNET AS DESCRIBED IN THE ENCLOSED INSTRUCTIONS OR DATE AND SIGN THE ENCLOSED PROXY CARD AND RETURN IT PROMPTLY IN THE ENCLOSED ENVELOPE.

[LOGO]
MEDTRONIC
WHEN LIFE DEPENDS ON MEDICAL TECHNOLOGY

MEDTRONIC, INC.
7000 CENTRAL AVENUE N.E.
MINNEAPOLIS, MINNESOTA 55432

PROXY STATEMENT
ANNUAL MEETING OF SHAREHOLDERS
AUGUST 25, 1999

The Board of Directors of Medtronic, Inc. ("Medtronic" or the "Company") is soliciting the accompanying proxy for the Annual Meeting of Shareholders of Medtronic to be held on August 25, 1999.

A proxy card is enclosed. In order to register your vote, you may vote by telephone or the internet as described in the enclosed instructions or complete, date and sign the proxy card and return it in the envelope provided. When voting by telephone or the internet, your vote authorizes the named proxies to vote your shares in the same manner as if you completed, signed and returned your proxy card.

When stock is registered in the name of more than one person, each such person should sign the proxy. If the shareholder is a corporation, the proxy should be signed in its corporate name by an executive or other authorized officer. If signed as attorney, executor, administrator, trustee, guardian, custodian or in any other representative capacity, the signer's full title should be given.

Shareholders are entitled to one vote for each share of Medtronic Common Stock, \$.10 par value, they hold of record as of the close of business on July 2, 1999. On that date, 586,763,987 shares of Medtronic Common Stock were outstanding. A quorum (a majority of the outstanding shares) must be represented at the Meeting in person or by proxy to transact business.

Shares represented by a properly executed proxy received by Medtronic prior to the Meeting and not revoked will be voted in accordance with the instructions of the shareholder or, if no instructions are indicated, in accordance with the recommendations of the Board of Directors. A proxy may be revoked at any time before it is exercised by written revocation to the Corporate Secretary of Medtronic or by submitting a proxy with a more recent date either by using the telephone or internet voting procedures or by filing a new written proxy with the Corporate Secretary. This proxy statement and enclosed proxy card are first being mailed to shareholders on or about July 21, 1999.

ELECTION OF DIRECTORS

DIRECTORS AND NOMINEES

The Board of Directors is divided into three classes. The members of each class are elected to serve three-year terms with the terms of office of each class ending in successive years. Glen D. Nelson, M.D., Jean-Pierre Rosso, Jack W. Schuler and Gerald W. Simonson are the nominees for election to the Board as Class I directors to serve until the year 2002 annual meeting or until their successors are elected and qualified. All of the nominees are currently directors and were elected to the Board of Directors by the shareholders except for Mr. Rosso, who was elected by the Board on

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August 26, 1998. After 23 years of dedicated Board service, Richard A. Swalin, Ph.D. will retire from the Board on August 25, 1999 in accordance with the Board's policy of mandatory retirement. With the retirement of Dr. Swalin, the Board will consist of 14 members.

All of the nominees have indicated a willingness to serve if elected. However, if any nominee becomes unable to serve before the election, the shares represented by the proxy cards may be voted for a substitute designated by the Board, unless an instruction to the contrary is indicated on the proxy card.

THE BOARD RECOMMENDS A VOTE FOR ELECTING THE NOMINEES.

DIRECTOR NOMINEES -- CLASS I
(TERM ENDING 2002)

[PHOTO] GLEN D. NELSON, M.D., age 62 DIRECTOR SINCE 1980 CLASS I DIRECTOR TERM EXPIRES 1999	Vice Chairman of Medtronic since July 1988 and Executive Vice President from August 1986 to July 1988; Chairman and Chief Executive Officer of American MedCenters, Inc. (HMO management) from July 1984 to August 1986; Chief Executive Officer, President and Chairman of the Board of Trustees of Park Nicollet Medical Center (medical services) from 1975 to 1986; Surgeon at Park Nicollet Medical Center from 1969 to 1986. Also a director of The St. Paul Companies, Inc., Carlson Holdings, Inc., Avatar, Inc., and Advanced BioSurfaces, Inc. Member, Johns Hopkins Board of Visitors and Jackson Hole Group.
[PHOTO] JEAN-PIERRE ROSSO, age 59 DIRECTOR SINCE 1998 CLASS I DIRECTOR TERM EXPIRES 1999	Chairman and Chief Executive Officer of Case Corporation (farm and construction equipment) since October 1997; Chairman, President and Chief Executive Officer of Case Corporation from March 1996 to October 1997; President and Chief Executive Officer of Case Corporation from April 1994 to March 1996. President of the Home & Building Control Business of Honeywell, Inc. from 1992 to April 1994; President of European operations of Honeywell, Inc. from 1987 through 1991. Also a director of ADC Telecommunications, Inc. and Crown Cork & Seal Company, Inc.
[PHOTO] JACK W. SCHULER, age 58 DIRECTOR SINCE 1990 CLASS I DIRECTOR TERM EXPIRES 1999	Chairman of the Board of Stericycle, Inc. (medical waste treatment and recycling) since 1990 and Chairman of the Board of Ventana Medical Systems, Inc. (immunohisto-chemistry diagnostic systems) since November 1995; President and Chief Operating Officer of Abbott Laboratories (health care products) from

January 1987 to August 1989; a director of that company from April 1985 to August 1989 and Executive Vice President from January 1985 to January 1987. Also a director of Chiron Corporation.

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[PHOTO]
GERALD W. SIMONSON, age 69
DIRECTOR SINCE 1962
CLASS I DIRECTOR
TERM EXPIRES 1999

Private venture capital investor since June 1978; President and Chief Executive Officer of Omnetics Connector Corporation (microminiature connectors) since March 1991. Also a director of Northwest Teleproductions, Inc., The Chromaline Corporation and Fairview Hospital and Healthcare Services.

BOARD MEMBERS CONTINUING IN OFFICE -- CLASS II
(TERM ENDING 2000)

[PHOTO]
MICHAEL R. BONSIGNORE, age 58
DIRECTOR SINCE 1999
CLASS II DIRECTOR
TERM EXPIRES 2000

Chairman of the Board and Chief Executive Officer of Honeywell, Inc. since April 1993; Executive Vice President and Chief Operating Officer of the International and Home & Building Control business of Honeywell, Inc. from 1990 to 1993; President of Honeywell's International business from 1987 to 1990; President of Honeywell Europe from 1983 to 1987. Also a director of Cargill, Inc. and The St. Paul Companies, Inc. and a member of various advisory boards and committees including: The U.S.-China Business Council, Investment and Services Policy Advisory Committee, U.S.-Russia Trade and Economic Council, the Alliance to Save Energy Board, New Perspective Fund, Inc. and Euro Pacific Growth Fund.

[PHOTO]
WILLIAM W. GEORGE, age 56
DIRECTOR SINCE 1989
CLASS II DIRECTOR
TERM EXPIRES 2000

Medtronic Chairman of the Board and Chief Executive Officer since August 1996; President and Chief Executive Officer from May 1991 to August 1996; President and Chief Operating Officer from March 1989 to April 1991. President, Honeywell Space and Aviation Systems, from December 1987 to March 1989; President, Honeywell Industrial Automation and Control, from May 1987 to December 1987 and Executive Vice President of that business from January 1983 to May 1987. Also a director of Dayton Hudson Corporation, Allina Health System (Chairman), Imation Corp., Novartis, and Health Industry Manufacturers Association.

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[PHOTO]
BERNADINE P. HEALY, M.D., age 54
DIRECTOR SINCE 1993
(AND 1987-1991)
CLASS II DIRECTOR
TERM EXPIRES 2000

Dean, College of Medicine and Public Health, and Professor of Medicine, The Ohio State University, since October 1995. Physician and Science Policy Advisor, The Cleveland Clinic Foundation (nonprofit medical research

organization), from July 1993 to May 1995; Director of the National Institutes of Health from April 1991 to June 1993; Chairman of the Research Institute of The Cleveland Clinic Foundation from November 1985 to April 1991; President, the American Heart Association, National Center, from 1988 to 1989; Deputy Director of Office of Science and Technology Policy, Executive Office of the United States President, from 1984 to 1985; Professor of Medicine, The Johns Hopkins University School of Medicine, from 1977 to 1984. Also a trustee of Battelle Memorial Institutes and a director of National City Corporation, Invacare, Inc. and Ashland, Inc.

[PHOTO]

RICHARD L. SCHALL, age 69
DIRECTOR SINCE 1971
CLASS II DIRECTOR
TERM EXPIRES 2000

Consultant. Retired Vice Chairman and Chief Administrative Officer and director of Dayton Hudson Corporation as of February 1985. Also a director of EcoLab Inc. and a trustee of Santa Barbara City College Foundation.

[PHOTO]

GORDON M. SPRENGER, age 62
DIRECTOR SINCE 1991
CLASS II DIRECTOR
TERM EXPIRES 2000

President and Chief Executive Officer of Allina Health System (health care delivery) since June 1999; Chief Executive Officer of Allina Health System from April 1999 to June 1999; Executive Officer of Allina Health System from July 1994 to April 1999; Chief Executive Officer and director of HealthSpan Health Systems Corporation (health care delivery) from September 1992 to July 1994; President and Chief Executive Officer of LifeSpan, Inc. (health care delivery) from 1982 to September 1992; Chief Executive Officer of Abbott-Northwestern Hospital from 1982 to September 1992; President of Abbott-Northwestern Hospital from 1982 to 1988. Also a member of Board of Regents, St. Olaf College, and a director of The St. Paul Companies, Inc., Bush Foundation and Past Chair of the Board of the American Hospital Association.

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BOARD MEMBERS CONTINUING IN OFFICE -- CLASS III
(TERM ENDING 2001)

WILLIAM R. BRODY, M.D., PH.D., age 55
DIRECTOR SINCE 1998
CLASS III DIRECTOR
TERM EXPIRES 2001

President of The Johns Hopkins University since September 1996. Special Assistant to the President of the University of Minnesota Academic Health Center, May 1996 to July 1996; Provost of the University of Minnesota Academic Health Center from September 1994 to May 1996; the Martin Donner Professor and Director of the Department of Radiology at The Johns Hopkins University School of Medicine from 1987 to 1994. Also a director of Alza Corporation and Mercantile Bankshares Corporation.

[PHOTO]

PAUL W. CHELLGREN, age 56
DIRECTOR SINCE 1997

Chairman of the Board and Chief Executive Officer of Ashland Inc. (energy company) since January 1997 and

CLASS III DIRECTOR
TERM EXPIRES 2001

Chief Executive Officer since October 1996; President and Chief Operating Officer of Ashland Inc. from January 1992 to September 1996. Also a director of PNC Bank Corp. and Arch Coal, Inc.

[PHOTO]
ARTHUR D. COLLINS, JR., age 51
DIRECTOR SINCE 1994
CLASS III DIRECTOR
TERM EXPIRES 2001

Medtronic President and Chief Operating Officer since August 1996; Chief Operating Officer from January 1994 to August 1996; Executive Vice President of the Company and President of Medtronic International from June 1992 to January 1994. Corporate Vice President of Abbott Laboratories (health care products) from October 1989 to May 1992 and Divisional Vice President of that company from May 1984 to October 1989. Held various management positions both in the U.S. and Europe during his 14 years with Abbott. Also a director of U.S. Bancorp. and Tennant Company, and member of the Board of Overseers of The Wharton School.

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[PHOTO]
ANTONIO M. GOTTO, JR., M.D., age 63
DIRECTOR SINCE 1992
CLASS III DIRECTOR
TERM EXPIRES 2001

The Stephen and Suzanne Weiss Dean of the Cornell University Medical Center and Provost for Medical Affairs, Cornell University, since January 1997. Chairman and Professor of the Department of Medicine at Baylor College of Medicine and Methodist Hospital from 1977 to 1996 and former J. S. Abercrombie Chair, Atherosclerosis and Lipoprotein Research from 1976 to 1996. Also director and principal investigator, Specialized Center of Research in Arteriosclerosis, National Heart, Lung and Blood Institute, President, International Atherosclerosis Society and Past President, American Heart Association.

[PHOTO]
THOMAS E. HOLLORAN, age 69
DIRECTOR SINCE 1960
CLASS III DIRECTOR
TERM EXPIRES 2001

Professor, Graduate School of Business, University of St. Thomas, St. Paul, Minnesota since June 1985; Chairman, Minneapolis-St. Paul Metropolitan Airports Commission, from February 1989 to January 1991; Chairman of the Board of Directors and Chief Executive Officer of Inter-Regional Financial Group, Inc. (predecessor of Dain Rauscher Corporation) (holding company for various financial enterprises) from 1976 to June 1985. Also a director of Flexsteel Industries, Inc., MTS Systems Corp., ADC Telecommunications Inc., National City Bank of Minneapolis and National City Bancorporation; Chairman and a director of Malt-O-Meal Company; and a director of the Minnesota Center for Corporate Responsibility and the Bush Foundation.

Election of each director nominee requires the affirmative vote of the holders of a majority of the shares of Common Stock present in person or by proxy and entitled to vote on such nominee at the Annual Meeting. For this purpose, a shareholder voting through a proxy who withholds authority to vote on the election of directors shall not be considered present and entitled to vote on the election of directors.

BOARD AND BOARD COMMITTEE MEETINGS

During fiscal 1999, Medtronic's Board of Directors held a total of ten Board meetings. Each director attended 75% or more of the total meetings of the Board of Directors and Board committees on which the director served (held during the period he or she served as a director), except for Drs. Gotto and Healy, who each attended more than 70% of the total such meetings held. The standing committees of the Board of Directors include the Audit Committee, the Compensation Committee, the Finance Committee, the Corporate Governance Committee and the Technology and Quality Committee.

AUDIT COMMITTEE. The Audit Committee held three meetings in fiscal 1999. Committee members are Brody, Healy, Holloran, Schuler (Chair) and Swalin. The committee reviews Medtronic's annual financial statements; makes recommendations regarding Medtronic's independent auditors and scope of auditor services; reviews the adequacy of accounting and audit policies, compliance assurance procedures and internal controls; reviews nonaudit services performed by auditors to maintain auditors' independence; and reports to the Board of Directors on disclosure adequacy and adherence to accounting principles.

COMPENSATION COMMITTEE. The Compensation Committee held four meetings in fiscal 1999. Committee members are Bonsignore, Chellgren, Healy, Rosso, Schall, Schuler and Simonson (Chair). The committee reviews compensation philosophy and major compensation and benefits programs for employees; oversees certain stock and benefit plans; and reviews executive officers' compensation.

FINANCE COMMITTEE. The Finance Committee held four meetings in fiscal 1999. Committee members are Chellgren (Chair), Gotto, Rosso, Schall, Simonson and Sprenger. The committee reviews

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and makes recommendations regarding financial policies and performance objectives as developed by management, including review of Medtronic's annual and long-range operating plans; assists management in evaluation of major acquisitions and divestitures from a financial perspective; reviews changes in capital structure; and reviews banking relationships, insurance coverage on assets, tax strategies, and financial performance and related matters pertaining to Medtronic's employee pension and supplemental retirement plans.

CORPORATE GOVERNANCE COMMITTEE. The Corporate Governance Committee held two meetings in fiscal 1999. Committee members are Bonsignore, Brody, Chellgren, Gotto, Healy, Holloran, Rosso, Schall (Chair), Schuler, Simonson, Sprenger and Swalin. The committee addresses all matters of corporate governance; evaluates qualifications and candidates for positions on the Board; evaluates the performance of the chief executive officer and the Board; reviews major organization changes and senior management performance; and reviews director compensation philosophy. The Corporate Governance Committee maintains a Nominating Subcommittee which considers and recommends to the full Committee criteria for selecting new directors, nominees for Board membership and the positions of CEO, Chairman and Chair of the Corporate Governance Committee, and whether a director should be invited to stand for re-election. The Subcommittee is comprised of the Chair of the Corporate Governance Committee plus one director selected from each class of directors. The current Subcommittee held one meeting in fiscal 1999 and includes Schall (Chair), Healy, Holloran and Schuler.

The Corporate Governance Committee will consider nominees for Board membership submitted by shareholders. Nominations by shareholders must be made pursuant to timely notice in writing to the Corporate Secretary at 7000 Central Avenue N.E., Minneapolis, Minnesota 55432. Candidates for director should be persons with broad training and experience in their chosen fields and who have earned distinction in their activities. Notice by the shareholder to be timely must be received not less than 50 nor more than 90 days prior to the meeting or, if less than 60 days disclosure of the meeting date is given, not later than the close of business on the 10th day following the day on which notice of the meeting date is mailed or public disclosure of such date is made. The notice shall set forth certain information concerning such shareholder and the nominees, including their names and addresses, their principal occupation or employment, the capital stock of the Company which they beneficially own, such other information as would be required in a proxy statement soliciting proxies for the election of the nominees and the consent of each nominee to serve as a director if so elected. The chairman of the meeting may refuse to acknowledge

the nomination of any person not made in compliance with the foregoing procedure.

TECHNOLOGY AND QUALITY COMMITTEE. The Technology and Quality Committee held two meetings in fiscal 1999. Committee members are Bonsignore, Brody, Gotto, Healy (Chair), Holloran, Sprenger and Swalin. The committee reviews policies, practices, processes and quality programs concerning technological and product research; reviews efforts and investments in developing new products and businesses; evaluates Medtronic's technological education and recognition programs; and reviews quality process matters with Medtronic's chief quality officer.

DIRECTOR COMPENSATION

As part of the Company's desire to further emphasize performance-based compensation and to encourage stock ownership by the Company's management and Board of Directors, the Company adopted the Medtronic, Inc. Outside Director Stock Compensation Plan (the "Director Plan") effective March 5, 1998.

Director compensation has three components: an annual retainer, an annual stock option grant and an annual credit of deferred stock units. In addition, all new non-employee board members receive an initial stock option grant.

The annual retainer in place for the 1998-1999 plan year (September 1, 1998 through August 31, 1999) is \$50,000 for all non-employee directors except the Chair of the Corporate Governance Committee, whose retainer is \$60,000. Directors have the option of taking 100% of the annual retainer in the form of cash, or 100% in the form of stock options. If options are chosen, the number of shares

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covered by such options will equal four times the amount of the annual retainer divided by the fair market value of a share of Medtronic stock on the last day of the relevant plan year (which will also be the exercise price of such options). These options expire on the tenth anniversary of the date of grant. The annual retainer is reduced by 25% if a non-employee director does not attend at least 75% of the total meetings of the Board and Board committees on which such director served during the relevant plan year.

Under the Director Plan, each non-employee director also receives on the first day of each plan year an annual stock option grant for a number of shares of Medtronic stock equal to the amount of the annual retainer divided by the fair market value of a share of Medtronic stock on the date of grant (which will also be the exercise price of such option). These options expire at the earlier of the tenth anniversary of the date of grant or five years after the holder ceases to be a director of the Company.

The Director Plan also provides that on the last day of each plan year, each non-employee director will be credited with a number of deferred stock units (each representing the right to receive one share of Medtronic stock) equal to one-half of the amount of the annual retainer divided by the average of the fair market value of a share of Medtronic stock for the last 20 trading days during the plan year. Dividends paid on Medtronic stock are credited to a director's stock unit account in the form of additional stock units. The balance in a director's stock unit account will be distributed to such director in the form of shares of Medtronic stock upon resignation or retirement from the Board, in a single distribution or, at the director's option, in five equal annual distributions.

Each new non-employee director also receives, on the date he or she first becomes a director, a one-time initial stock option grant under the Director Plan for a number of shares of Medtronic stock equal to two times the amount of the annual retainer divided by the fair market value of a share of Medtronic stock on the date of grant (which will also be the exercise price of such option). These options expire at the earlier of the tenth anniversary of the date of grant or five years after the holder ceases to be a director of the Company.

All of the non-employee director options described above vest and are exercisable in full on the date of grant, provided that a director initially appointed by the Board will generally not be entitled to exercise any such

option until such director has been elected to the Board by the shareholders of the Company.

In 1998, the Company discontinued its charitable contribution plan for all directors, which provided for a contribution of \$1 million to charitable institutions recommended by a deceased director with five or more years of service at the time of death. However, persons who became directors prior to July 1, 1998 will continue to be eligible for this benefit.

As part of its overall program to promote charitable giving, the Company's Foundation matches gifts by directors to qualified educational institutions up to \$7,000 per fiscal year.

CERTAIN TRANSACTIONS

The Company uses Carlson Wagonlit Travel, which was selected through a competitive bidding process, as its travel agency for Company business. Dr. Glen Nelson, who is Vice Chairman and a director of the Company, is a director of Carlson Holdings, Inc., a family-owned business which includes Carlson Wagonlit Travel. Members of Dr. Nelson's family are owners and officers of Carlson Holdings, Inc. The Company paid fees totaling approximately \$1,458,000 to Carlson Wagonlit Travel for services in fiscal 1999. Management believes that these transactions were on terms no less favorable to the Company than if made with unaffiliated third parties.

SHAREHOLDINGS OF CERTAIN OWNERS AND MANAGEMENT

CERTAIN BENEFICIAL OWNERS. To the best of Medtronic's knowledge, no shareholder beneficially owned more than 5% of Medtronic's Common Stock as of July 2, 1999.

MANAGEMENT SHAREHOLDINGS. The following table shows the number of shares of Medtronic Common Stock beneficially owned by Medtronic's directors, executive officers identified in the Summary Compensation Table below, and all directors and executive officers as a group as of July 2, 1999.

NAME OF BENEFICIAL OWNER	AMOUNT AND NATURE OF BENEFICIAL OWNERSHIP (1) (2)
Michael R. Bonsignore	1,767
William R. Brody, Ph.D., M.D.	7,365
Paul W. Chellgren	8,165
Arthur D. Collins, Jr.(3)	779,515
Bill K. Erickson	375,966
William W. George(4)	1,660,783
Antonio M. Gotto, Jr., M.D.	42,297
Bernadine P. Healy, M.D.	27,973
Thomas E. Holloran	94,924
Glen D. Nelson, M.D.(5)	972,686
Jean-Pierre Rosso	22
Robert L. Ryan	349,386
Richard L. Schall	218,821
Jack W. Schuler	41,945
Gerald W. Simonson	74,957
Gordon M. Sprenger	46,615
Richard A. Swalin, Ph.D.	50,549
Directors and executive officers as a group (26 persons) (2)	6,102,843

(1) No director or executive officer beneficially owns more than 1% of the shares outstanding. Medtronic's directors and executive officers as a group beneficially own approximately 1.04% of the shares outstanding.

(2) Includes the following shares not currently outstanding but deemed beneficially owned because of the right to acquire them pursuant to options exercisable within 60 days (on or before August 31, 1999) as follows: W.R. Brody, 4,681 shares; P.W. Chellgren, 6,802 shares; A.D. Collins, Jr., 486,195 shares; B.K. Erickson, 195,271 shares; W.W. George, 745,312 shares;

A.M. Gotto, Jr., 35,711 shares; B.P. Healy, 17,836 shares; T.E. Holloran, 39,526 shares; G.D. Nelson, 660,466 shares; R.L. Ryan, 328,408 shares; R.L. Schall, 34,872 shares; J.W. Schuler, 19,840 shares; G.W. Simonson, 34,573 shares; G.M. Sprenger, 37,419 shares; R.A. Swalin, 39,738 shares; and all directors and executive officers as a group, 3,349,605 shares.

- (3) Mr. Collins, disclaims beneficial ownership of 5,000 shares included in the above table, which are held by the Collins Family Foundation, a charitable trust of which he is one of the trustees.
- (4) Mr. George disclaims beneficial ownership of 111,859 shares included in the above table, which are held by the George Family Foundation, a charitable trust of which he is one of the trustees. The above table also includes an aggregate of 62,386 shares covered by currently exercisable options transferred by Mr. George to members of his immediate family.
- (5) The above table includes an aggregate of 98,835 shares covered by currently exercisable options transferred by Dr. Nelson to members of his immediately family.
- (6) Mr. Schall disclaims beneficial ownership of 54,299 shares included in the above table, which are held in a charitable lead annuity trust.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE. Section 16(a) of the Securities Exchange Act of 1934 requires the Company's directors and executive officers to file reports of ownership and changes in ownership of the Company's Common Stock with the Securities and Exchange Commission and the New York Stock Exchange, and the Company is required to identify any of those individuals who failed to file such reports on a timely basis. To the best of the Company's knowledge, based upon a review of such reports furnished to the Company and written representations that no other reports were required, there were no late filings by the Company's directors or executive officers in fiscal 1999 other than by Mr. Lund, who did not timely report several stock gifts in December 1997. The report was promptly filed upon discovery of the oversight.

REPORT OF THE COMPENSATION COMMITTEE ON
FISCAL 1999 EXECUTIVE COMPENSATION

OVERVIEW.

The Compensation Committee of the Board of Directors (the "Committee") is comprised solely of directors who are not current or former employees of the Company. The Committee is responsible for establishing the compensation policy and administering the compensation programs for the Company's executive officers and other key employees. The Committee periodically engages independent compensation consultants to assist them in this process. In carrying out its duties, the Committee intends to make all reasonable attempts to comply with the requirements to exempt executive compensation from the \$1 million deduction limitation under Section 162(m) of the Internal Revenue Code, unless the Committee determines that such compliance in given circumstances would not be in the best interests of the Company and its shareholders.

COMPENSATION PHILOSOPHY.

The compensation program for executive officers is designed to

- * Emphasize performance-based compensation;
- * Encourage strong financial performance by establishing aggressive goals for target performance and highly leveraged incentive programs;
- * Encourage executive stock ownership and alignment with shareholder interests by providing a significant portion of compensation in Company Common Stock.

The principal elements of the program consist of base salary, annual incentives and long-term incentives in the form of stock options, performance

shares and restricted stock. The Company's philosophy is to position the aggregate of these elements at a level which is commensurate with the Company's size and performance relative to other leading medical equipment and pharmaceutical companies, as well as a larger group of general industry companies. The Committee periodically reviews the reasonableness of total compensation levels and mix using public information from comparator company proxy statements and survey information from credible general industry surveys.

BASE SALARY. The Committee annually reviews and approves the base salaries of executive officers, taking into consideration individual performance, retention, the level of responsibility, the scope and complexity of the position and competitive practice.

ANNUAL INCENTIVE AWARDS. Executive officers are eligible for annual incentives under the shareholder approved Management Incentive Plan. This is a formula-based plan with awards based on corporate and business unit performance. For fiscal 1999, corporate operating performance was assessed against target measures of corporate profit after taxes, revenue growth and after-tax return on net assets, with these measures given weights of 40%, 40% and 20%, respectively. Business unit financial performance was assessed against target measures of earnings before interest and taxes, revenue growth, and after-tax return on net assets or net asset turnover, with these measures assigned respective weights that vary for each participant.

For fiscal 1999, executive officers were eligible for Management Incentive Plan target awards ranging from 35% to 70% of base salary. Final awards can range from 0% to 230% of the target amounts, and a threshold level of performance is required before any payout occurs.

STOCK OPTIONS. Stock options are granted annually to executive officers. Target awards are based on pre-established grant guidelines that are calibrated to competitive standards. Individual awards vary based on the individual's responsibilities and performance, ability to impact financial performance and future potential. All grants are made at 100% of fair market value.

PERFORMANCE SHARES. Top executives are eligible for grants of performance shares under the Performance Share program. Grants are made annually for overlapping three-year performance periods. Grant targets range from 30% to 50% of base salary. Once a threshold level of performance is attained, final awards can range from 20% to 180% of the target amounts. The 1999-2001 cycle will be based on performance measures of basic earnings per share (40%), return on net assets (40%) and revenue growth (20%).

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Performance shares earned for the 1997-1999 cycle were based on earnings per share (40%), after-tax return on net assets (40%) and revenue growth (20%). Medtronic's performance for this performance cycle was very strong, resulting in a payout at 158% of the target award. The value of the award is based on the average price of the Company's Common Stock for the last 20 trading days of the performance cycle, up to a maximum of three times the price at the date of grant. Half of the award is paid in Company Common Stock, with the other half paid in cash or Company Common Stock at the discretion of the Committee.

STOCK OPTION EXCHANGE PROGRAM. To encourage stock ownership by executives, the Company offers a program which allows executives to elect to receive stock options in lieu of some or all of the cash compensation earned under the Management Incentive Plan and the Performance Share program. Currently under the program, participants receive an option on \$4 of stock at market value for every \$1 of compensation exchanged. Stock options granted to named executives in fiscal 1999 under this program are disclosed in the "Option/SAR Grants in Last Fiscal Year" table on page 14 of this Proxy Statement.

ADJUSTMENTS FOR ACQUISITIONS AND NON-RECURRING CHARGES. In determining award payments with respect to the Company's short-term and long-term incentive programs, the Committee has adopted a longstanding practice of excluding from the calculation of performance results certain acquisitions and non-recurring items of income or loss. Consistent with this practice, the performance results for fiscal 1999 exclude all or a portion of certain acquisitions made during the year, as well as all of the non-recurring charges related to those acquisitions.

COMPENSATION OF CHIEF EXECUTIVE OFFICER. The CEO's compensation is comprised of base salary, annual incentive and long-term incentives. Pay levels and opportunity are established by the Committee in the same manner as for other executive officers described above.

The CEO received a 14% merit increase to base salary effective at the beginning of fiscal 1999. In determining the base salary for the CEO, the Committee specifically considered annual operating performance (for fiscal 1998), strategic planning and succession planning for senior management.

For fiscal 1999, the CEO was eligible to receive a target award of 70% of base salary under the Management Incentive Plan. Annual performance, adjusted for acquisitions and non-recurring charges, was 94.6% of target.

In fiscal 1999, the CEO received a Performance Share grant with a target payout equal to 50% of his base salary. Performance objectives for the 1999-2001 performance cycle are consistent with those for all program participants listed above. For the three-year cycle ended in fiscal 1999, the Company achieved cumulative earnings per share and average after-tax return on net assets performance at or above the maximum of the performance targets. Revenue growth was slightly below target. Consequently, the payout for this cycle for all executive officers, including the CEO, was 158% of the target award.

CONCLUSION.

Consistent with its compensation philosophy, the Committee believes the executive officer compensation program provides incentive to attain strong financial performance and is strongly aligned with shareholder interests. The Committee believes that the Company's compensation program directs the efforts of the Company's executive officers toward the continued achievement of growth and profitability for the benefit of the Company's shareholders.

COMPENSATION COMMITTEE:

Gerald W. Simonson, Chair	Jean-Pierre Rosso
Michael R. Bonsignore	Richard L. Schall
Paul W. Chellgren	Jack W. Schuler
Bernadine P. Healy, M.D.	

SHAREHOLDER RETURN PERFORMANCE GRAPH

The graph and table below compare the cumulative total shareholder return on the Company's Common Stock for the last five fiscal years with the cumulative total return on the S&P 500 Index and the S&P Health Care (Medical Products and Supplies) Industry Index over the same period. The graph and table assume the investment of \$100 in each of the Company's Common Stock, the S&P 500 Index and the S&P Health Care (Medical Products and Supplies) Industry Index on April 30, 1994 and that all dividends were reinvested.

COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL RETURN AMONG MEDTRONIC, S&P 500 AND S&P HEALTH CARE (MEDICAL PRODUCTS & SUPPLIES) INDUSTRY INDEX

[PLOT POINTS CHART]

	April 30, 1994	April 30, 1995	April 30, 1996	April 30, 1997	April 30, 1998	April 30, 1999
	-----	-----	-----	-----	-----	-----
MEDTRONIC	\$100.00	\$199.19	\$286.02	\$375.14	\$576.89	\$785.96
S&P 500	100.00	117.41	152.81	191.09	269.51	328.34
S&P HEALTH CARE	100.00	155.88	210.67	245.08	350.36	449.97

EXECUTIVE COMPENSATION

The following table sets forth the cash and non-cash compensation for each

of the last three fiscal years ended April 30, 1999 awarded to or earned by the Chief Executive Officer and each of the other four most highly compensated executive officers of the Company.

SUMMARY COMPENSATION TABLE

NAME AND PRINCIPAL POSITION	FISCAL YEAR	ANNUAL COMPENSATION			LONG-TERM COMPENSATION					
		SALARY (\$)	BONUS (\$) (2) (3) (4)		OTHER ANNUAL COMPENSATION (\$ (1))	AWARDS		PAYOUTS		ALL OTHER COMPENSATION (\$ (8))
			RESTRICTED STOCK AWARDS (\$ (5))	SECURITIES UNDERLYING OPTIONS/SARs (#) (2) (3) (4) (6) (7)		LTIP PAYOUTS (\$ (6) (7))				
William W. George Chairman and Chief Executive Officer	1999	\$800,000	\$329,480	\$ --	\$ --	128,088	\$ --	\$40,530		
	1998	700,000	239,252	--	7,007,820	370,655	784,163	34,542		
	1997	642,000	464,598	--	--	32,908	1,431,161	43,331		
Arthur D. Collins, Jr. President and Chief Operating Officer	1999	700,000	430,203	--	--	90,190	--	35,515		
	1998	589,607	348,103	--	7,007,820	299,878	835,106	27,888		
	1997	471,000	214,703	--	--	37,880	933,897	32,110		
Glen D. Nelson, M.D. Vice Chairman	1999	530,000	--	5,958	--	103,632	--	29,057		
	1998	471,000	--	5,556	--	213,577	--	24,923		
	1997	471,000	--	5,694	--	62,682	996,249	32,097		
Robert L. Ryan Senior Vice President and Chief Financial Officer	1999	390,000	--	--	--	55,850	--	22,533		
	1998	370,000	--	--	--	117,079	--	19,638		
	1997	352,500	--	--	--	34,390	683,599	22,368		
Bill K. Erickson Senior Vice President & President, Americas	1999	325,000	83,556	925	--	43,554	--	19,245		
	1998	303,345	31,162	629	--	67,402	282,304	16,606		
	1997	288,900	110,239	644	--	14,860	543,293	20,611		

- (1) Amounts payable by the Company in above-market interest under deferred compensation plan.
- (2) "Bonus" column does not include fiscal 1999 cash bonus payments of \$200,000, \$325,725, \$184,373 and \$80,000 which Messrs. George, Nelson, Ryan and Erickson, respectively, elected to forego in order to receive stock options granted in lieu of part or all of their cash bonus compensation under the Management Incentive Plan. These stock options are included in the "Securities Underlying Options/SARs" column. See "Report of the Compensation Committee on Fiscal 1999 Executive Compensation -- Stock Option Exchange Program" and "Option/SAR Grants in Last Fiscal Year," below.
- (3) "Bonus" column does not include fiscal 1998 cash bonus payments of \$200,000, \$274,443, \$165,841 and \$75,000 which Messrs. George, Nelson, Ryan and Erickson, respectively, elected to forego in order to receive stock options granted in lieu of part or all of their cash bonus compensation under the Management Incentive Plan. These stock options are included in the "Securities Underlying Options/SARs" column. See "Report of the Compensation Committee on Fiscal 1999 Executive Compensation -- Stock Option Exchange Program."
- (4) "Bonus" column does not include fiscal 1997 cash bonus payments of \$100,000, \$314,703, \$196,390 and \$40,000 which Messrs. Collins, Nelson, Ryan and Erickson, respectively, elected to forego in order to receive stock options granted in lieu of part or all of their cash bonus compensation under the Management Incentive Plan. These stock options are included in the "Securities Underlying Options/SARs" column. See "Report of the Compensation Committee on Fiscal 1999 Executive Compensation -- Stock Option Exchange Program."
- (5) Mr. George and Mr. Collins each received a special grant of 150,000 shares of restricted stock in August 1997. Dollar value of such stock is based on the fair market value on the date of grant. The stock vests 100% on a cliff basis five years after the date of grant. Dividend equivalents are paid on the stock. Aggregate shares of restricted stock held by named executive officers at 4/30/99 and the value of such shares on that date (based on a closing stock price of \$71.9375 per share) are as follows: Mr. George and Mr. Collins each held 150,000 shares valued at \$10,790,625.
- (6) "LTIP Payouts" column does not include the value of cash and/or stock earned upon payment of performance share awards for the fiscal 1997-1999 performance cycle under the Company's long-term incentive plan of \$1,350,790, \$892,044, \$892,044, \$593,399 and \$486,353 which Messrs. George, Collins, Nelson, Ryan and Erickson, respectively, elected to forgo in order to receive stock options granted in lieu of part or all of such compensation. Those stock options are included in the "Securities

Underlying Options/SARs" column. See "Report of the Compensation Committee on Fiscal 1999 Executive Compensation -- Performance Shares" and "-- Stock Option Exchange Program."

- (7) "LTIP Payouts" column includes the value of both cash and stock earned in fiscal 1998 under the Company's Performance Share program under the 1994 Stock Award Plan described in "Other Long-Term Incentive Awards" below. The stock for the fiscal 1998 payment was valued at \$52.4875 per share. The column does not include the value of cash and/or stock earned upon payment of performance share awards for the fiscal 1996-1998 performance cycle under the Company's long-term incentive plan of \$784,163, \$200,000, \$1,035,106, \$701,810 and \$282,304 which Messrs. George, Collins,

Nelson, Ryan and Erickson, respectively, elected to forgo in order to receive stock options granted in lieu of part or all of such compensation. Those stock options are included in the "Securities Underlying Options/SARs" column. See "Report of the Compensation Committee on Fiscal 1999 Executive Compensation -- Performance Shares" and -- "Stock Option Exchange Program."

- (8) Amounts in this column for fiscal 1999 include the following: the Company contributed \$4,144 in shares of Company stock under the employee stock ownership plan for each of the named executive officers for fiscal 1999; the Company contributed \$7,776 to each of the named executive officers to match employee contributions under the 401(k) supplemental retirement plan; and the Company contributed \$28,610, \$23,595, \$17,137, \$10,613 and \$7,325 to Messrs. George, Collins, Nelson, Ryan and Erickson, respectively, toward the right to receive shares of Company stock under the non-qualified supplemental benefit plan.

OPTION/SAR GRANTS IN LAST FISCAL YEAR

The following table sets forth for each of the named executives the stock options granted by the Company in fiscal 1999 and the potential value of these stock options determined pursuant to Securities and Exchange Commission requirements. No stock appreciation rights were granted to the named executives in fiscal 1999.

NAME	INDIVIDUAL GRANTS			EXPIRATION DATE	POTENTIAL REALIZABLE VALUE AT ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TERM		
	NUMBER OF SECURITIES UNDERLYING OPTIONS/SARs (#)	% OF TOTAL OPTIONS/SARs GRANTED TO EMPLOYEES IN FISCAL YEAR	EXERCISE OR BASE PRICE (\$/Sh)		0% (\$)	5% (\$)(5)	10% (\$)(5)
W. W. George.....	35,260(1)	1.1%	\$63.8125	10/28/08	0	\$1,417,518	\$3,577,546
	6,597(2)	0.2	75.1875	04/28/09	0	312,488	788,659
	11,121(3)	0.4	71.9375	05/01/09	0	504,011	1,272,027
	75,110(4)	2.4	71.9375	05/01/09	0	3,404,032	8,591,129
A. D. Collins, Jr.	35,260(1)	1.1	63.8125	10/28/08	0	1,417,518	3,577,546
	5,328(2)	0.2	75.1875	04/28/09	0	252,377	636,952
	49,602(4)	1.6	71.9375	05/01/09	0	2,247,994	5,673,508
G. D. Nelson, M.D.	31,342(1)	1.0	63.8125	10/28/08	0	1,260,007	3,180,018
	4,576(2)	0.1	75.1875	04/28/09	0	216,757	547,052
	18,112(3)	0.6	71.9375	05/01/09	0	820,847	2,071,662
	49,602(4)	1.6	71.9375	05/01/09	0	2,247,994	5,673,508
R. L. Ryan	9,403(1)	0.3	63.8125	10/28/08	0	378,018	954,046
	3,199(2)	0.1	75.1875	04/28/09	0	151,531	382,434
	10,252(3)	0.3	71.9375	05/01/09	0	464,627	1,172,630
	32,996(4)	1.1	71.9375	05/01/09	0	1,495,399	3,774,103
B. K. Erickson	9,403(1)	0.3	63.8125	10/28/08	0	378,018	954,046
	2,658(2)	0.1	75.1875	04/28/09	0	125,904	317,759
	4,449(3)	0.1	71.9375	05/01/09	0	201,631	508,879

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- (1) These stock options granted to the named executive officers have an exercise price equal to the fair market value on the date of grant and vest annually in 25% increments.
 - (2) These stock options were granted in exchange for the elimination of a senior officer Postretirement Survivor Benefit Plan. The options vest 100% on a cliff basis at the earlier of the officer's earliest possible retirement date or eight years after the date of grant.
 - (3) These stock options were granted in lieu of all or part of the cash compensation earned for fiscal 1999 under the Company's annual incentive plan. Because the executives elected to forego cash compensation to receive the options, which were granted on 5/01/99, the options are 100% vested at grant. See "Report of the Compensation Committee on Fiscal 1999 Executive Compensation -- Stock Option Exchange Program."
 - (4) These stock options were granted in lieu of all or part of the cash and/or stock compensation earned upon payment of performance share awards for the fiscal 1997-1999 performance cycle under the Company's long-term incentive plan. Because the executives elected to forego cash and/or stock compensation to receive the options, which were granted on 5/01/99, the options are 100% vested at grant. See "Report of the Compensation Committee on Fiscal 1999 Executive Compensation -- Stock Option Exchange Program."
 - (5) The hypothetical potential appreciation shown in these columns reflects the required calculations at annual rates of 5% and 10% set by the Securities and Exchange Commission, and therefore is not intended to represent either historical appreciation or anticipated future appreciation of the Company's Common Stock price.

AGGREGATED OPTION/SAR EXERCISES IN LAST FISCAL YEAR
AND FISCAL YEAR-END OPTION/SAR VALUES

The following table sets forth for each of the named executive officers the value realized from stock options exercised during fiscal 1999 and the number and value of exercisable and unexercisable stock options and stock appreciation rights held at April 30, 1999.

NAME	SHARES ACQUIRED ON EXERCISE	VALUE REALIZED (\$)	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS/SARs AT FISCAL YEAR-END (#)	VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS/SARs AT FISCAL YEAR-END (\$) (1)
			----- EXERCISABLE/ UNEXERCISABLE -----	----- EXERCISABLE/ UNEXERCISABLE -----
W. W. George (2)	400,000	\$25,840,620	740,756/551,165	\$35,667,190/\$21,537,142
A. D. Collins, Jr.	0	0	482,135/359,979	24,682,899/9,528,779
G. D. Nelson, M.D. (3) ...	0	0	657,846/162,521	28,530,715/4,270,846
R. L. Ryan	26,624	1,573,729	326,144/83,739	12,529,329/2,488,658
B. K. Erickson	70,884	4,062,034	205,127/64,911	8,973,368/1,950,627

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- (1) Value of unexercised in-the-money options is determined by multiplying the difference between the exercise price per share and \$71.9375, the closing price per share on 4/30/99, by the number of shares subject to such options. Amounts include stock options granted on 5/01/99 in lieu of cash compensation earned for fiscal 1999 under the Company's annual incentive plan and cash and/or stock compensation earned upon payment of performance share awards for the fiscal 1997-1999 performance cycle under the Company's

Performance Share Program under the 1994 Stock Award Plan. See "Report of the Compensation Committee on Fiscal 1999 Executive Compensation -- Stock Option Exchange Program."

- (2) Includes exercisable options to purchase an aggregate of 62,386 shares transferred to members of Mr. George's immediate family.
- (3) Includes exercisable options to purchase an aggregate of 98,835 shares transferred to members of Dr. Nelson's immediate family.

OTHER LONG-TERM INCENTIVE AWARDS

The following table sets forth the number of performance share units granted to each of the named executives in fiscal 1999 under the Company's 1994 Stock Award Plan and the performance-based award formula under such Plan.

LONG-TERM INCENTIVE PLANS -- AWARDS IN LAST FISCAL YEAR(1)

NAME	NUMBER OF SHARES, UNITS OR OTHER RIGHTS (#)	PERFORMANCE OR OTHER PERIOD UNTIL MATURATION OR PAYOUT	ESTIMATED FUTURE PAYOUTS UNDER NON-STOCK PRICE BASED-PLANS		
			THRESHOLD (#)	TARGET (#)	MAXIMUM (#)
W. W. George	7,621	5/1/98-4/30/01	1,525	7,621	13,718
A. D. Collins, Jr.	6,669	5/1/98-4/30/01	1,334	6,669	12,005
G. D. Nelson, M.D.	5,049	5/1/98-4/30/01	1,010	5,049	9,089
R. L. Ryan	2,973	5/1/98-4/30/01	595	2,973	5,352
B. K. Erickson	2,477	5/1/98-4/30/01	496	2,477	4,459

(1) Payout of awards is based on achieving specified levels of designated performance objectives during a three-year performance cycle. Payout can range from 0% to 180% of units granted, with 20% and 180% as the threshold and maximum payouts, respectively. Payout of 100% of the units granted represents the target payout. Awards are payable at least 50% in Common Stock, with the remainder paid in cash or Common Stock at the discretion of the Compensation Committee. The value of an award is determined when it is earned based on the average fair market value per share for the last 20 trading days of the performance cycle. The Company offers a program which allows executives to receive stock options in lieu of some or all of the cash and/or stock compensation earned upon payment of performance share awards. See "Report of the Compensation Committee on Fiscal 1999 Executive Compensation -- Performance Shares" and "-- Stock Option Exchange Program," above.

PENSION PLAN

The Company's pension plan is a defined benefit, tax qualified retirement plan covering most U.S. employees and generally provides 40% of the average of the highest five consecutive years of compensation (including certain incentive compensation) in the final ten years of service, offset by a Social Security allowance as published each year by the Internal Revenue Service. The table below illustrates the annual benefits payable to participants who retire at age 65 with the indicated years of service with Medtronic and with the indicated five-year highest average annual compensation. The benefits have been calculated on a 50% joint and survivor annuity basis. The compensation considered in determining the pensions payable to the below-named executive officers is the compensation shown in the "Salary" and "Bonus" columns of the Summary Compensation Table on page 13.

AVERAGE ANNUAL COMPENSATION (1)	15	20	25	30	35
\$ 200,000	\$ 33,878	\$ 45,171	\$ 56,463	\$ 67,756	\$ 72,331
400,000	70,478	93,971	117,463	140,956	150,106
600,000	107,078	142,771	178,463	214,156	227,881
800,000	143,678	191,571	239,463	287,356	305,656
1,000,000	180,278	240,371	300,463	360,556	383,431
1,200,000	216,878	289,171	361,463	433,756	461,206
1,400,000	253,478	337,971	422,463	506,956	538,981

(1) Calculated by considering a participant's compensation levels during the ten-year period immediately preceding retirement. The credited years of service (rounded to the nearest whole year) for the executive officers named in the Summary Compensation Table were as follows at April 30, 1999: W.W. George, 10 years; A.D. Collins, Jr., 7 years; G.D. Nelson, 13 years; R.L. Ryan, 6 years; and B. K. Erickson, 28 years.

Certain limitations on the amount of benefits under the Company's tax qualified retirement plan were imposed by the Employee Retirement Income Security Act of 1974 ("ERISA") and Tax Reform Act of 1986 ("TRA"). The Company's non-qualified supplemental benefit plan provides for the restoration of benefits to officers who may be affected by those limitations so that, in general, total benefits will be equal to the level of benefits which would have been payable under the Company's pension plan and Employee Stock Ownership Plan but for the ERISA and TRA limitations or for the fact that the executive has elected to defer compensation under the Company's deferred compensation programs. The amounts shown in the pension plan table above reflect the additional retirement benefits provided under the non-qualified supplemental benefit plan.

EMPLOYMENT AND CHANGE IN CONTROL ARRANGEMENTS

CHANGE IN CONTROL ARRANGEMENTS. The executive officers of the Company, including those named in the Summary Compensation Table, have change in control agreements (the "Agreements") with the Company. The Agreements operate only upon the occurrence of a "change in control" as described below. Absent a "change in control" the Agreements do not require the Company to retain the executives or to pay them any specified level of compensation or benefits.

Each Agreement provides that for three years after a "change in control" there will be no adverse change in the executive's salary, bonus, opportunity, benefits or location of employment. If during this three-year period the executive's employment is terminated by the Company other than for cause, or if the executive terminates his employment for good reason (as defined in the Agreements, and including compensation reductions, demotions, relocation and excess travel), or voluntarily during the 30-day period following the first anniversary of the "change in control," the executive is entitled to receive an accrued salary and annual incentive payment through the date of termination and, except in the event of death or disability, a lump sum severance payment ("Lump Sum Payment") equal to three times (two times in the event of termination by the executive in the aforementioned 30-day period) the

sum of his base salary and annual bonus (and certain insurance and other welfare plan benefits). Further, an additional payment ("gross-up") is required in an amount such that after the payment of all taxes, income and excise, the executive will be in the same after-tax position as if no excise tax under the Internal Revenue Code had been imposed.

Generally, and subject to certain exceptions, a "change in control" is deemed to have occurred if: (a) a majority of Medtronic's Board of Directors becomes comprised of persons other than persons for whose election proxies have been solicited by the Board, or who are then serving as directors appointed by the Board to fill vacancies caused by death or resignation (but not removal) of a director or to fill newly created directorships; (b) another party becomes the beneficial owner of at least 30% of Medtronic's outstanding voting stock; or (c) Medtronic's shareholders approve a definitive agreement or plan to merge or consolidate Medtronic with another party (other than certain limited types of

mergers), exchange shares of voting stock of Medtronic for shares of another corporation pursuant to a statutory exchange, sell or otherwise dispose of all or substantially all of Medtronic's assets, or liquidate or dissolve Medtronic.

In addition, events substantially identical to those described above also constitute a "change in control" under certain of the Company's compensation plans. If a "change in control" of the Company occurs, awards under the Company's Management Incentive Plan will accelerate and, subject to certain limitations set forth in the plan, each participant will be entitled to a final award based on certain assumptions as to target performance and salary. The Company's stock award plans and agreements thereunder provide that in the event of a "change in control" of the Company, all restrictions under outstanding restricted stock awards shall immediately lapse and the restricted stock period with respect to all such shares shall be deemed to have expired, and performance share awards shall vest immediately in a pro rata amount based on the portion of the performance period elapsed prior to the "change in control" and certain assumptions as to the anticipated performance which would have been achieved during the applicable performance period.

The Company's stock award plans and agreements thereunder also provide for or permit acceleration of the exercisability of outstanding stock options upon the occurrence of certain events (such as certain tender offers or exchange offers for the Company's stock, certain changes in control of the Company, a merger or consolidation of the Company with another entity, or a sale of substantially all of the Company's assets or certain plans therefor) or at the discretion of the Board of Directors. Limited stock appreciation rights ("Limited Rights") granted under the stock option plans are exercisable, with certain limitations, at any time within the thirty-day period following a "change in control" of Medtronic. Upon exercise of Limited Rights, the holder is entitled to receive an amount in cash for each share with respect to which the Limited Rights are exercised equal to the difference between the option exercise price per share of stock covered by the underlying option and the fair market value per share as of the date of exercise. If Limited Rights are exercised, the underlying option will no longer be exercisable to the extent of the number of shares with respect to which the Limited Rights were exercised.

If a "change in control" occurs, subject to certain limitations, Medtronic's contributions to the employee stock ownership plan for that year will equal the greater of Medtronic's target percentage contribution (currently 2.5% of aggregate covered employee compensation in fiscal 1999) or, if a "change in control" occurs after the first quarter of a plan year, the percentage contribution Medtronic would have made upon completion of the plan year based on performance as most recently projected by Medtronic prior to the "change in control" and disregarding the effects of the "change in control." If a "change in control" occurs during a plan year, subject to certain limitations, Medtronic's matching contribution to the 401(k) supplemental retirement plan shall equal the greater of Medtronic's target percentage matching contribution (currently 75% of the first 6% of a participant's contribution in fiscal 1999), or if the "change in control" occurs after the first quarter of a plan year, the percentage contribution Medtronic would have made upon completion of the plan year based on performance as most recently projected by Medtronic prior to the "change in control" and disregarding the effects of the "change in control."

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OTHER EMPLOYMENT ARRANGEMENTS. In anticipation of Mr. George's plan to relinquish the role of CEO after ten years, the Board in November 1997 entered into a letter agreement with A.D. Collins, Jr. in order to ensure his availability as successor to the chief executive officer position. The agreement provides that if Mr. Collins is not named chief executive officer by May 1, 2001, he may terminate employment and will receive severance benefits, and his outstanding stock awards will accelerate and vest in full, all to the same extent as if a change in control had occurred as provided in his change in control agreement and the Company's plans, as discussed above. See "Change in Control Arrangements" above.

APPROVAL TO AMEND RESTATED ARTICLES OF INCORPORATION TO INCREASE
AUTHORIZED SHARES OF COMMON STOCK

GENERAL

At present, Medtronic's Restated Articles of Incorporation authorize the issuance of 800,000,000 shares of Common Stock, \$.10 par value per share, and 2,500,000 shares of Preferred Stock, \$1.00 par value per share. At July 2, 1999 586,763,987 shares of Common Stock were outstanding and 213,236,013 shares of Common Stock were authorized but unissued. Of these unissued shares, approximately 46,398,813 were reserved for issuance pursuant to the Company's stock award and other employee benefit plans. Accordingly, at July 2, 1999, there were approximately 166,837,200 shares of Common Stock available for general corporate purposes. No shares of Preferred Stock were outstanding at such date.

The Board of Directors recommends that the authorized number of shares of Common Stock be increased from 800,000,000 to 1,600,000,000. Such increase, if approved, will be effected by amending Section 3.1 of Article 3 of Medtronic's Restated Articles of Incorporation to increase the authorized shares of the Company to 1,602,500,000, consisting of 1,600,000,000 shares of Common Stock and 2,500,000 shares of Preferred Stock. The full text of the proposed amended Section 3.1 is set forth in Appendix A hereto.

The Board desires to increase the number of authorized shares of Common Stock to give the Board flexibility to declare stock dividends or stock splits at such times as the Board may deem appropriate (based upon the number of shares of Common Stock outstanding and the number reserved for issuance at this time, the Company does not have sufficient authorized shares of Common Stock to effect a two-for-one stock dividend or stock split); to give the Board flexibility to make acquisitions using stock; to adopt additional employee benefit plans or increase the shares available under existing plans; to raise equity capital or to use the additional shares for other general corporate purposes. Aside from shares currently reserved for issuance under employee benefit plans, the Board has not authorized the issuance of any additional shares, and there are no current agreements or commitments for the issuance of any additional shares.

Shareholders of the Company have no preemptive rights with respect to the Common Stock and Preferred Stock for the Company. If this proposed amendment is adopted, the additional authorized shares of Common Stock will be available for issuance from time to time at the discretion of the Board without further action by the shareholders, except where shareholder approval is required by stock exchange requirements or to obtain favorable tax treatment for certain employee benefit plans. Although an increase in the authorized shares of common stock could, under certain circumstances, also be construed as having an anti-takeover effect (for example, by diluting the stock ownership of a person seeking to effect a change in the composition of the Board of Directors or contemplating a tender offer or other transaction for the combination of the Company with another company), the Company is not proposing this amendment to the Restated Articles of Incorporation in response to any effort to accumulate the Company's stock or to obtain control of the Company by means of a merger, tender offer, or solicitation in opposition to management.

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VOTING REQUIREMENTS AND RECOMMENDATION

Approval of this amendment to the Company's Restated Articles requires the affirmative vote of a majority of the shares of Common Stock of the Company present in person or by proxy and entitled to vote on this item at the Annual Meeting. Proxies solicited by the Board of Directors will be voted for approval of the amendment unless shareholders specify otherwise in their proxies.

For this purpose a shareholder voting through a proxy who abstains with respect to approval of the amendment is considered to be present and entitled to vote on the approval of the amendment at the Meeting, and is in effect a negative vote; but a shareholder (including a broker) who does not give authority to a proxy to vote, or withholds authority to vote, on the approval of the amendment shall not be considered present and entitled to vote on the proposal.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR THE ADOPTION OF THIS AMENDMENT TO THE COMPANY'S RESTATED ARTICLES OF INCORPORATION.

REAPPROVAL OF PERFORMANCE CRITERIA FOR
MANAGEMENT INCENTIVE PLAN

BACKGROUND

In April 1999, the Board of Directors approved, subject to shareholder approval, the material terms of the performance criteria for the Company's Management Incentive Plan ("MIP") so that performance-based bonuses paid under the MIP continue to qualify for deduction under Section 162(m) of the Internal Revenue Code of 1986. Code section 162(m) limits the annual federal tax deduction for compensation paid to the Company's chief executive officer and the other four most highly compensated executive officers (the "Covered Employees") to \$1,000,000. Certain performance-based compensation is excluded from this limitation, and the MIP has been designed to comply with that exception.

Currently, the tax regulations provide that, every five years, the Company's shareholders must approve the material terms of the performance criteria specified in the MIP and which the Compensation Committee may establish for annual bonuses payable to Covered Employees. The MIP was last approved by the shareholders at the Company's 1994 annual meeting. Accordingly, the material terms of the performance criteria specified in the MIP, as amended by the Board, are being presented to the shareholders for approval at the 1999 annual meeting.

PURPOSE

The MIP is designed to motivate officers and other key employees to achieve the Company's operating goals by providing the opportunity for incentive compensation in addition to annual salaries. The MIP is also designed to promote the accomplishment of management's primary annual objectives as reflected in the Company's annual operating plan, in the various business unit annual operating plans and in the objectives established by management for employees, and to recognize the achievement of these objectives through the payment of incentive compensation.

ELIGIBILITY

Eligible employees include executive officers, heads of key staff functions, heads of operating business units and other major contributors to business unit or corporate results. Each year, the Compensation Committee will select those Covered Employees who may participate in the MIP. Other participants will be selected by the chief executive officer.

PERFORMANCE CRITERIA

At the beginning of each year, each participant, including Covered Employees, are assigned to a specific participation category. The range of potential awards to participants under the MIP is stated as

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percentages of each participant's salary. If minimum performance objectives are met or exceeded, actual awards will fall within a scale ranging from designated minimum awards to designated target awards to designated maximum awards. The designated target award for each participation category is referred to as the "Target Award Percentage."

Each participant, including Covered Employees, is also assigned to a specified performance category, which will set forth the weighted combinations of performance factors to be considered in connection with the award. Such factors may be one or a combination of the performance of the participant individually, as part of a team or as a member of management, the participant's division or other business unit, and the Company as a whole. Performance categories for Covered Employees will be based solely on one or any combination of two or more of the following factors: revenue; revenue per employee; earnings before income tax (profit before taxes); earnings before interest and income tax; net earnings (profit after taxes); earnings per employee; tangible, controllable or total asset turnover; earnings per share; operating income; total shareholder return; market share; return on equity; before-or after-tax return on net assets; distribution expense; inventory turnover or economic value added (economic profit); and such criteria may relate to one or any combination of two or more of corporate, group, unit, division, affiliate or individual performance.

At the beginning of each year, the Committee will establish objectives by which performance during the year will be measured, and each objective will have a stated target. At the end of the year, the degree of achievement for each objective will be expressed as a percentage of the stated target.

At the beginning of each year, the Committee will also establish a minimum threshold level of financial objectives which the Company must achieve before awards may be paid under the MIP. If those minimum threshold objectives are not met, no awards will be paid to participants, including Covered Employees, regardless of whether other objectives have been met. Similar minimum thresholds may be established for a business unit.

Final awards will equal the sum of the corporate financial portion, the unit financial portion and the management portion as determined under the terms of the MIP. Each portion is the product of the participant's salary; the Target Award Percentage for the participant's Participation category; the financial percentage under the performance category; and the corporate performance, unit financial or management score, as the case may be. No Covered Employee may receive an award in excess of \$3,000,000 (increased from \$2,000,000 effective April 30, 1999).

VOTING REQUIREMENTS AND RECOMMENDATION

Approval of the material terms of MIP's performance criteria requires the affirmative vote of a majority of the shares of the Company's Common Stock present in person or by proxy and entitled to vote on this item at the Annual Meeting. Proxies solicited by the Board of Directors will be voted for approval of the MIP, unless shareholders specify otherwise in their proxies.

For this purpose, a shareholder voting through a proxy who abstains with respect to approval of the material terms of the performance criteria of the MIP is considered to be present and entitled to vote on the approval of the MIP at the Annual Meeting, and is in effect a negative vote, but a shareholder (including a broker) who does not give authority to a proxy to vote, or withholds authority to vote, on the approval of the MIP shall not be considered present and entitled to vote on the proposal.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR APPROVAL OF THE MATERIAL TERMS OF THE PERFORMANCE CRITERIA OF THE MANAGEMENT INCENTIVE PLAN.

REAPPROVAL OF PERFORMANCE CRITERIA FOR PERFORMANCE SHARE AWARDS UNDER 1994 STOCK AWARD PLAN

BACKGROUND

In April 1999, the Board of Directors approved, subject to shareholder approval, the material terms of the performance criteria for performance share awards under the Company's 1994 Stock Award Plan

("the 1994 Plan") so that such awards continue to qualify for deduction under Section 162(m) of the Internal Revenue Code of 1986. Code Section 162(m) limits the annual federal tax deduction for compensation paid to the Company's chief executive officer and the other four most highly compensated executive officers (the "Covered Employees") to \$1,000,000. Certain performance-based compensation is excluded from this limitation, and the performance share awards under the 1994 Plan have been designed to comply with that exception.

Currently, the tax regulations provide that, every five years, the Company's shareholders must approve the material terms of the performance criteria specified in the 1994 Plan for performance share awards and which the Compensation Committee may establish for awards granted to Covered Employees. The performance criteria specified in the 1994 Plan was last approved by the shareholders at the Company's 1994 annual meeting. Accordingly, the material terms of the performance criteria specified in the 1994 Plan, as amended by the Board, are being presented to the shareholders for approval at the 1999 meeting.

PURPOSE

The purpose of the 1994 Plan is to motivate key personnel to produce a superior return to the Company's shareholders by offering such individuals an opportunity to realize stock appreciation, by facilitating stock ownership and by rewarding them for achieving a high level of corporate performance. The 1994 Plan is also intended to facilitate recruiting and retaining key personnel of outstanding ability.

ELIGIBILITY AND NUMBER OF SHARES

All employees of the Company and its affiliates are eligible for performance share awards under the 1994 Plan. The Compensation Committee will select those employees, including Covered Employees, who may receive performance share awards. No employee may receive performance shares relating to more than 680,000 shares (as adjusted for stock splits) over a five-year period.

PERFORMANCE CRITERIA

Performance shares entitle the recipient to payment in amounts determined by the Committee upon the achievement of specified performance targets during a specified term. For Covered Employees, such performance targets will consist of one or any combination of two or more of the following factors: revenue; revenue per employee; earnings before income tax (profit before taxes); earnings before interest and income tax; net earnings (profit after taxes); earnings per employee; tangible, controllable or total asset turnover; earnings per share; operating income; total shareholder return; market share; return on equity; before- or after-tax return on net assets; distribution expense; inventory turnover or economic value added (economic profit); and such criteria may relate to one or any combination of two or more of corporate, group, unit, division, affiliate or individual performance. The value in dollars is determined when the award is earned based on the average fair market value per share for the last 20 trading days of the performance cycle.

Payments with respect to performance share awards may be paid in cash, shares of the Company's Common Stock or a combination of cash and Common Stock as determined by the Compensation Committee. Subject to the limit described above, at least 25% of the value of vested performance shares must be distributed in the form of stock (or such higher percentage as the Committee may from time to time determine, which is currently 50%).

VOTING REQUIREMENTS AND RECOMMENDATION

Approval of the performance criteria for performance share awards under the 1994 Plan requires the affirmative vote of a majority of the shares of the Company's Common Stock present in person or by proxy and entitled to vote on this item at the Annual Meeting. Proxies solicited by the Board of Directors will be voted for approval of such performance criteria, unless shareholders specify otherwise in their proxies.

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For this purpose, a shareholder voting through a proxy who abstains with respect to approval of the material terms of the performance criteria for performance share awards under the 1994 Plan is considered to be present and entitled to vote on the approval of such performance criteria at the Annual Meeting, and is in effect a negative vote, but a shareholder (including a broker) who does not give authority to a proxy to vote, or withholds authority to vote, on the approval of the performance criteria shall not be considered present and entitled to vote on the proposal.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR APPROVAL OF THE MATERIAL TERMS OF THE PERFORMANCE CRITERIA FOR PERFORMANCE SHARE AWARDS UNDER THE 1994 STOCK AWARD PLAN.

APPROVAL OF SELECTION OF AUDITORS

Upon recommendation of its Audit Committee, Medtronic's Board has selected PricewaterhouseCoopers LLP, certified public accountants, as independent auditors for Medtronic for the fiscal year ending April 30, 2000. That firm has

acted as independent auditors for Medtronic for more than 20 years, and the Board considers it highly qualified. Although it is not required to do so, the Board of Directors wishes to submit the selection of PricewaterhouseCoopers LLP for shareholders' approval at the Meeting. If the shareholders do not give approval, the Board will reconsider its selection.

Representatives of PricewaterhouseCoopers LLP will be present at the Meeting, will have the opportunity to make a statement if they desire and will be available to respond to appropriate questions.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR RATIFICATION OF THIS APPOINTMENT.

GENERAL

The costs of soliciting proxies will be borne by Medtronic, including the reimbursement to record holders of their expenses in forwarding proxy materials to beneficial owners. Directors, officers and regular employees of Medtronic, without extra compensation, may solicit proxies personally or by mail, telephone, fax, telex, telegraph or special letter.

Medtronic has retained ChaseMellon Shareholder Services, L.L.C., a firm that provides professional proxy soliciting services, to aid in the solicitation of proxies for a fee of \$9,500 plus reimbursement for certain out-of-pocket expenses.

Shareholder proposals for consideration at the Company's 2000 Annual Meeting (anticipated date August 24, 2000) must follow the procedures set forth in Rule 14a-8 under the Securities Exchange Act of 1934 and the Company's Restated Articles of Incorporation. To be timely under Rule 14a-8, shareholder proposals must be received by the Company by March 23, 2000 in order to be considered for inclusion in the Company's Proxy Statement. Under the Company's Restated Articles of Incorporation, if a shareholder plans to bring an item of business before a meeting of shareholders, the shareholder must notify the Company not less than 50 days nor (except for shareholder proposals subject to Rule 14a-8) more than 90 days prior to the meeting, provided, however, that if less than 60 days notice of the meeting date is given, notice by the shareholder to be timely must be received not later than the close of business on the 10th day following the day on which notice of the meeting date is mailed or public disclosure of such date was made. If the Company does not receive notice of a shareholder proposal within the time requirements set forth in the Restated Articles of Incorporation, then the Company will not be required to present such proposal at the 2000 Annual Meeting of Shareholders. The proposals must also comply with all applicable statutes and regulations.

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Medtronic's 1999 Annual Shareholders Report, including financial statements, is being sent to shareholders of record as of July 2, 1999, together with this Proxy Statement.

MEDTRONIC WILL FURNISH TO SHAREHOLDERS WITHOUT CHARGE A COPY OF ITS ANNUAL REPORT ON FORM 10-K FOR THE FISCAL YEAR ENDED APRIL 30, 1999, AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION, UPON RECEIPT OF WRITTEN REQUEST ADDRESSED TO: INVESTOR RELATIONS DEPARTMENT, MEDTRONIC, INC., 7000 CENTRAL AVENUE N.E., MINNEAPOLIS, MINNESOTA 55432.

The Board of Directors knows of no other matters to be presented at the Annual Meeting. If any other business properly comes before the Annual Meeting or any adjournment thereof, the proxies will vote on that business in accordance with their best judgment.

By Order of the Board of Directors,

/s/ Ronald E. Lund

Ronald E. Lund, Secretary
MEDTRONIC, INC.

APPENDIX A

PROPOSED AMENDMENT TO ARTICLE 3, SECTION 3.1 OF MEDTRONIC, INC.'S RESTATED ARTICLES OF INCORPORATION

(LANGUAGE TO BE ADDED to the text has been underlined and language to be deleted has been enclosed in brackets"[]").

3.1 AUTHORIZED SHARES; ESTABLISHMENT OF CLASSES AND SERIES. The aggregate number of shares the corporation has authority to issue shall be 1,602,500,000

[802,500,000] shares, which shall consist of 1,600,000,000

[800,000,000] shares of Common Stock with a par value of \$.10 per share, and 2,500,000 shares of Preferred Stock with a par value of \$1.00 per share. The Board of Directors is authorized to establish from the shares of Preferred Stock, by resolution adopted and filed in the manner provided by law, one of more classes of series of Preferred Stock, and to set forth the designation of each such class or series and fix the relative rights and preferences of each such class or series of Preferred Stock, including, but not limited to, fixing the relative voting rights, if any, of each class or series of Preferred Stock to the full extent permitted by law. Holders of Common Stock shall be entitled one vote for each share of Common Stock held of record.

[LOGO]
MEDTRONIC
WHEN LIFE DEPENDS ON MEDICAL TECHNOLOGY

ANNUAL MEETING

AUGUST 25, 1999
WEDNESDAY, 10:30 A.M., CENTRAL DAYLIGHT TIME

MEDTRONIC, INC.
CORPORATE CENTER
RICE CREEK FACILITY
7000 CENTRAL AVE. N.E.
MINNEAPOLIS (FRIDLEY), MINNESOTA

PROXY CARD

[LOGO] MEDTRONIC, INC.
MEDTRONIC 7000 CENTRAL AVE. N.E.
MINNEAPOLIS (FRIDLEY), MINNESOTA

The undersigned appoints WILLIAM W. GEORGE and RONALD E. LUND, and each of them, as Proxies, each with the power to appoint his substitute, to represent and vote, as designated below, all shares of the undersigned at the 1999 Annual Meeting of Shareholders of Medtronic, Inc. at the Medtronic, Inc. Corporate Center at its Rice Creek facility, 7000 Central Avenue N.E., Minneapolis (Fridley), Minnesota, at 10:30 a.m., Central Daylight Time, on Wednesday, August 25, 1999, and at any adjournment thereof.

In their discretion, the Proxies are authorized to vote upon such other business as may properly come before the Meeting or any adjournment thereof.

THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS DIRECTED OR, IF NO

DIRECTION IS GIVEN, WILL BE VOTED FOR EACH PROPOSAL. THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS, MEDTRONIC, INC.

(CONTINUED, AND TO BE SIGNED AND DATED ON OTHER SIDE)

YOU CAN NOW VOTE YOUR SHARES BY TELEPHONE OR THE INTERNET
_____QUICK *** EASY **** IMMEDIATE

COMPANY #
CONTROL #

Your telephone or internet vote authorizes the named proxies to vote your shares in the same manner as if you marked, dated, signed and returned your proxy card. Telephone and internet voting are available 24 hours a day, 7 days a week until noon (ET), on August 24, 1999.

TO VOTE BY TELEPHONE:

1. Using a touch-tone phone, call 1-800-240-6326. This is a toll-free call. Have your proxy card in hand when you call.
2. When prompted, enter the Company number and Control number shown in the upper right corner of this proxy card. After following the voting instructions, your vote will be confirmed when you hear "Thank you for voting."

TO VOTE VIA THE INTERNET:

1. Go to the website <http://www.eproxy.com/mdt/> and enter the Company number and Control number in the upper right corner of this proxy card when prompted.
2. Follow the step-by-step instructions on the computer screen.

TO VOTE BY MAIL:

1. Mark, sign and date the proxy card and return it in the postage-paid envelope provided.

-- THANK YOU FOR VOTING --

IF YOU VOTE BY TELEPHONE OR INTERNET, DO NOT MAIL BACK THIS PROXY CARD

THE BOARD OF DIRECTORS RECOMMENDS VOTES FOR ITEMS 1, 2, 3, 4 AND 5.

1. Set board size at fourteen members and elect four Class I Directors for three-year terms:

Nominees: 01 Glen D. Nelson, M.D.	03 Jack W. Schuler	<input type="checkbox"/> FOR	<input type="checkbox"/> WITHHOLD
02 Jean-Pierre Rosso	04 Gerald W. Simonson	all nominees	from all nominees

(INSTRUCTIONS: TO WITHHOLD AUTHORITY TO VOTE FOR ANY NOMINEE(S), WRITE THE NUMBER(S) OF THE NOMINEE(S) IN THE BOX TO THE RIGHT.)

[ARROW] PLEASE FOLD HERE [ARROW]

2. To approve an amendment to the Company's Restated Articles of Incorporation to increase the number of shares of Common Stock the Company is authorized to issue. For Against Abstain
3. To reapprove the performance criteria for the Company's Management Incentive Plan. For Against Abstain
4. To reapprove the performance criteria for the Company's 1994 Stock Award Plan. For Against Abstain
5. To approve appointment of PricewaterhouseCoopers LLP as the Company's independent auditors. For Against Abstain

THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, WILL BE VOTED FOR EACH PROPOSAL.

Address Change? Mark Box [] [] Mark the box if you have more than one
Indicate changes below: account and want to discontinue receiving
multiple copies of future annual reports.

Date _____, 1999

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|
|

Signature(s) in Box
PLEASE DATE AND SIGN ABOVE exactly as
name appears, indicating, if appropriate,
official position or representative
capacity. If stock is held in joint
tenancy, each joint owner should sign.

[LOGO]
MEDTRONIC
WHEN LIFE DEPENDS ON MEDICAL TECHNOLOGY

ANNUAL MEETING

AUGUST 25, 1999
WEDNESDAY, 10:30 A.M., CENTRAL DAYLIGHT TIME

MEDTRONIC, INC.
CORPORATE CENTER
RICE CREEK FACILITY
7000 CENTRAL AVE. N.E.
MINNEAPOLIS (FRIDLEY), MINNESOTA

PROXY CARD

[LOGO] MEDTRONIC, INC.
MEDTRONIC 7000 CENTRAL AVE. N.E.
MINNEAPOLIS (FRIDLEY), MINNESOTA

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[LOGO] MEDTRONIC, INC.
 MEDTRONIC 7000 CENTRAL AVE. N.E.
 MINNEAPOLIS (FRIDLEY), MINNESOTA

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(CONTINUED, AND TO BE SIGNED AND DATED ON OTHER SIDE)

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1. Set board size at fourteen members and elect four Class I Directors for three-year terms:

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3. To reapprove the performance criteria for the Company's Management Incentive Plan. For Against Abstain
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THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS DIRECTED OR, IF NO DIRECTION IS GIVEN, WILL BE VOTED FOR EACH PROPOSAL.

Date _____, 1999

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Signature(s) in Box
 PLEASE DATE AND SIGN ABOVE exactly as name appears, indicating, if appropriate, official position or representative capacity. If stock is held in joint tenancy, each joint owner should sign.